

REMARKS

Applicants respectfully request reconsideration of the outstanding Office Action rejections in view of the foregoing amendments and following remarks.

Claims 47-51 are new. Claims 29, 32, and 34 have been amended. Support for amending claim 29 to recite "dimensionally stable" is located in paragraph [0010] of the specification. Claims 32 and 34 have been amended to depend from new claim 51. No new matter has been added.

Claims 29, 33, 39, and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaplan (U.S. Patent 2,850,999) in view of Levendusky (U.S. Patent 5,919,517). Kaplan teaches a method for making coated, embossed metal sheets from rust resistant metals such as aluminum. The coating is applied onto the metal as an initial treatment, followed by embossing, before drawing and/or other secondary operations. Kaplan does not teach extrusion coating with plastic as a secondary operation. Therefore, Levendusky is combined for teaching a method of coating a metal strip, particularly aluminum, on one or both sides with thermoplastic resins from extruders and extrusion dies.

Applicants traverse the rejection and assert that present claim 29 recites a strip that is "dimensionally stable" whereas Kaplan teaches deformable flexible coatings. Kaplan teaches "deformable flexible coatings to the metal sheeting" (see Kaplan, column 2, lines 55-59). In contrast, present claim 29 b. recites a dimensionally stable strip. A reinforcement layer is defined in the present specification at paragraph [0010 - 0011] of the publication (US 2006/0127646) as having a thickness appropriate to obtain

a strip that is sufficiently dimensionally stable as well as sufficiently resistant. The combination with Levendusky does not cure Kaplan's deficiency of teaching a deformable layer instead of a stable layer because Levendusky does not teach a dimensionally stable layer. Applicants request withdrawal of the rejection of present claim 29 and claims that depend there from.

The stability of the reinforcement layer can be improved even further if the reinforcement layer contains fibers. New dependent claim 47 is directed to fibers in the reinforcement layer of present claim 29. New dependent claim 48 depends from claim 47 and recites that the fibers are mineral fibers. Support for fibers and mineral fibers in the reinforcement layer is found inter alia in paragraph [0011] of the present specification. New dependent claim 49 states that the reinforcement layer of present claim 29 is sufficiently dimensionally stable to prevent expansion and/or deformation of the strip, supported by paragraphs [0010], [0011] and [0030] of the present specification. New dependent claim 50 recites that the laminated strip of claim 29 is flexible enough to adapt to curved surfaces, with support found at the end of paragraph [0050] of the present specification. Levendusky's strip can be drawn or drawn and ironed into can bodies and can ends after the coating has adhered to the metal (see Levendusky, column 15, lines 31 - 38). Drawing such as this does not teach a "dimensionally stable" reinforcement layer as recited in the present claims. Neither Kaplan nor Levendusky teach a dimensionally stable reinforcement layer or a reinforcement layer that contains fibers or mineral fibers.

Claims 32 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaplan and Levendusky in view of Zeiter et al. (U.S. Patent 6,270,869; hereinafter "Zeiter"). Kaplan and Levendusky fail to teach an adhesive varnish and an additional plastic layer being loosely bonded to the aluminum substrate. Zeiter is combined for teaching a laminate film comprising a metal foil, including aluminum, wherein the aluminum foil either is or is not pre-treated with primer on one side (adhesive) and coated thereafter with PVC.

Applicants traverse the rejection and assert that claims 32 and 34 depend from allowable base claim 29 which recites a reinforcement layer. The combination of references does not teach a layer that is strong enough to be a reinforcement layer.

The Examiner argues that Zeiter teaches the upper layer of claim 32 being detachable by hand citing that both the upper layer of claim 32 as well as the plastic film (10) of Zeiter may be PVC. Applicants respectfully disagree and assert that whether or not a PVC layer is loosely bonded and detachable by hand or rigidly bonded and practically inseparable depends on the specific manufacturing process. Different bonding strengths can be achieved in particular by the employment of a respective non-adhesive or adhesive varnish to the respective side of the metal foil. Zeiter discloses a cold-formable laminate film used as a packaging with the plastic film on one side of the metal foil facing the contents of the packaging and the oriented polyamide film on the other side of the plastic film forming the outside of the packaging. The reverse orientation is also possible (see Zeiter col. 7, paragraph 1). The metal foil functions to reduce cross-diffusion through the laminated film. Therefore, it is necessary in Zeiter

that both the plastic layer and the oriented polyamide are rigidly bonded to the metal foil, which is in contrast to present claim 32 reciting “detachable by hand.”


Moreover, Zeiter teaches a plastic film having a thickness of 30 to 60 μm . New claim 51 recites that the reinforcement layer of present claim 29 has a thickness of 0.6 mm to 1 mm. Support is found in paragraph [0010] of the present specification where both values of 1 mm and 0.6 mm are recited as well as the range between the two being favorable. Claims 32 and 34 have been amended to depend from claim 51. The thickness recited in new claim 51, 600 μm to 1000 μm , is much greater than Zeiter’s 30-60 μm plastic film. The cited art does not teach the claimed reinforcement layer’s stability or thickness and the rejection should therefore be withdrawn.

Claims 31 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaplan and Levendusky in view of Waffner et al. (U.S. Patent 4,253,597; hereinafter “Waffner”). Kaplan and Levendusky fail to teach passing the aluminum through a loop-like arrangement after embossing and before extrusion coating. Waffner is combined for teaching that it has long been known that feeding of web material, such as fragile sheeting, from an input to an output is best accomplished by permitting a loose loop to form in the web between the inlet and the outlet. Applicants traverse and assert that Waffner does not cure the deficiency of Kaplan and Levendusky not teaching a stable plastic layer. The combination of Kaplan, Levendusky, and Waffner teaches the production of a deformable layer and not a stable reinforcement layer as recited in base claim 29.

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaplan, Levendusky and Waffner in view of Pannier (U.S. Patent 1,856,928). Kaplan, Levendusky and Waffner fail to teach the upper layer stopping during the embossing process. Pannier is combined for teaching a stamping method for embossing a metal sheet by bringing the sheet between the dies, operating upon the sheet, then shifting the sheet. Thus the Examiner states that it would have been obvious to apply Pannier's method of embossing because Pannier states that such embossing dies are suitable for embossing metal. Pannier is directed to embossing plates that can be quickly and accurately be placed in a press in a proper orientation. Applicants assert that there is no motivation to use Pannier's plates because Pannier does not solve any problem of the present invention or stated in the other references of the rejection. Specifically, there is no problem of replacing dies or misalignment recited that would encourage a person skilled in the art to look to Pannier's teaching. Further there is no teaching as to why the present strip would be stopped during the embossing step. Moreover, present claim 36 depends from and further limits claims 35 and 29, and should be allowable for the reasons claim 29 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding Office Action rejections. Early and favorable action is awaited. The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

Respectfully submitted,

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